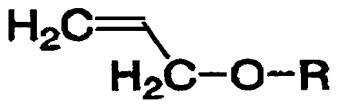
WHAT IS CLAIMED IS:

1. A fluorine-containing allyl ether compound represented by the formula 1,

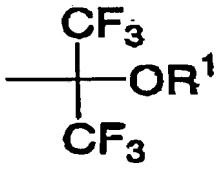


(1)

wherein R represents an organic group comprising at least one fluorine atom and an alicyclic structure.

2. A fluorine-containing allyl ether compound according to claim 1, wherein the alicyclic structure comprises a cyclohexane structure or bicyclo[2.2.1]heptane structure.

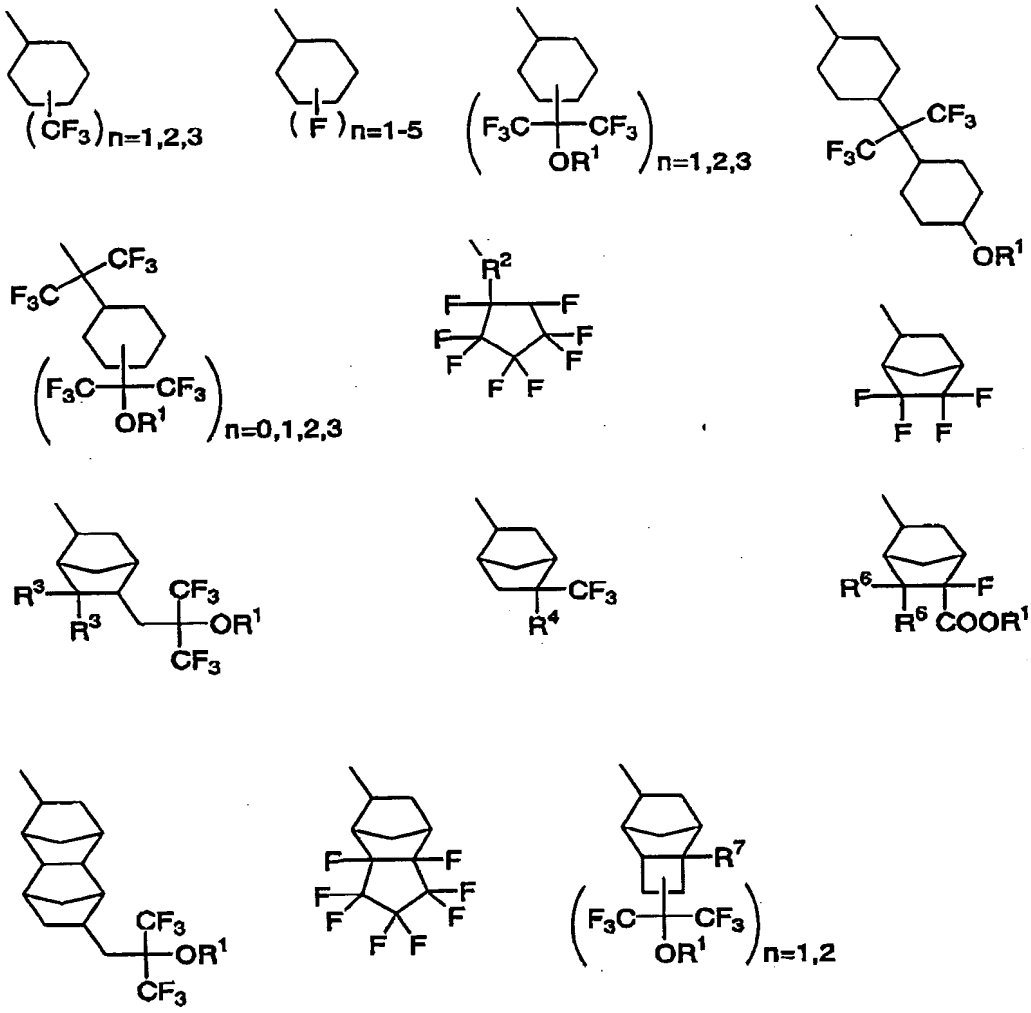
3. A fluorine-containing allyl ether compound according to claim 1, wherein the organic group R comprises a hexafluoroisopropanol group or unit derived therefrom, which is represented by the formula 2,



(2)

wherein R^1 represents a hydrogen or alkyl group having a carbon atom number of from 1 to 6 and optionally contains a heteroatom.

4. A fluorine-containing allyl ether compound according to claim 1, wherein the organic group R is represented by one of the following formulas,



wherein R^1 is H or a C_1-C_6 alkyl group and optionally contains a heteroatom;

R^2 is a C_0-C_5 alkyl group;

R^3 is H or F; R^4 is CF_3, OH, CO_2H, CO_2R^5, or $OCOR^5$ where R^5 is a C_1-C_6 alkyl group;

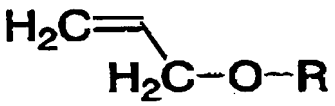
R^6 is H or F; and

R^7 is H or C_1-C_5 alkyl group.

5. A fluorine-containing copolymer comprising:

a first unit derived from a fluorine-containing allyl ether represented by the formula 1; and

a second unit derived from a vinyl monomer,



(1)

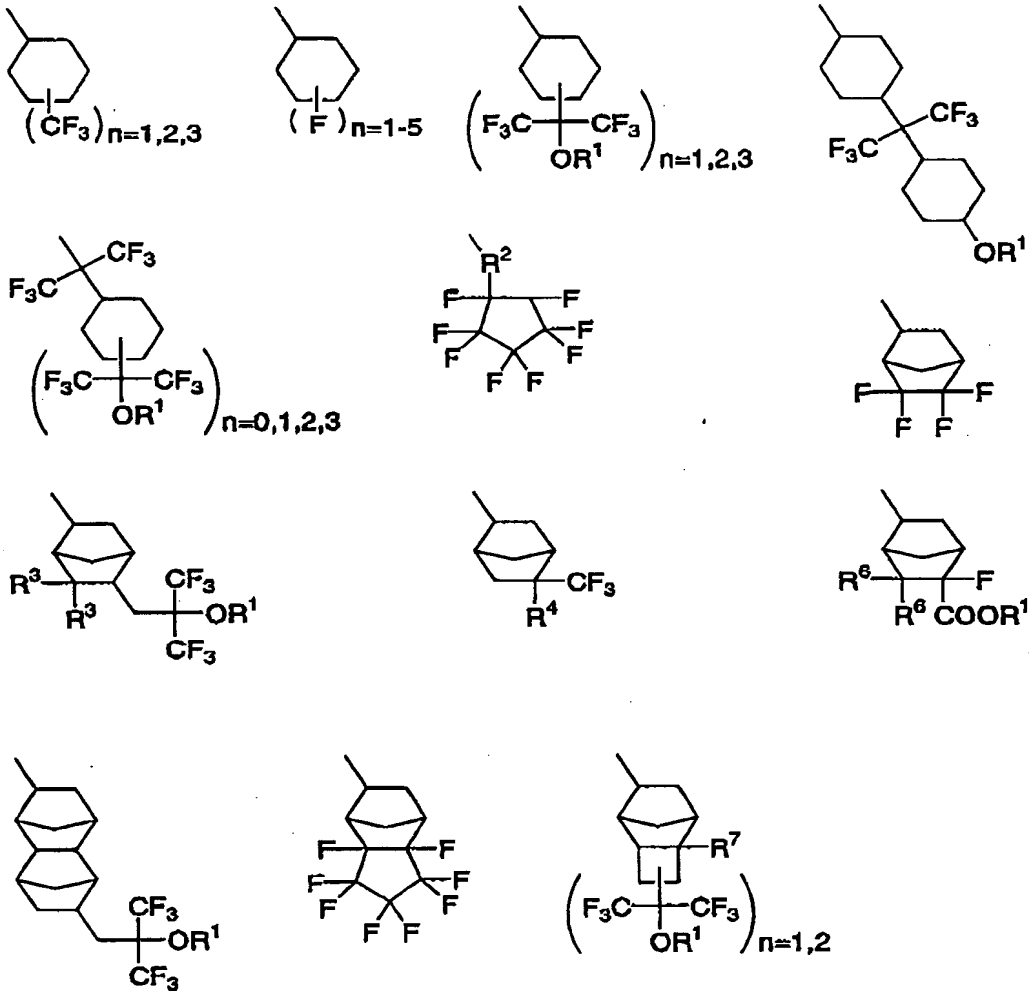
wherein R represents an organic group comprising at least one fluorine atom and an alicyclic structure.

6. A fluorine-containing copolymer according to claim 5, wherein the vinyl monomer is an α–trifluoromethyl acrylic ester.

7. A fluorine-containing copolymer according to claim 5, wherein the vinyl monomer is an acrylic ester..

8. A fluorine-containing copolymer according to claim 5, further comprising a third unit derived from a monomer containing a norbornene structure.

9. A fluorine-containing copolymer according to claim 5, wherein the organic group R is represented by one of the following formulas,



wherein R^1 is H or a C_1-C_6 alkyl group and optionally contains a heteroatom;

R^2 is a C_0-C_5 alkyl group;

R^3 is H or F; R^4 is CF_3, OH, CO_2H, CO_2R^5, or $OCOR^5$ where R^5 is a C_1-C_6 alkyl group;

R^6 is H or F; and

R^7 is H or C_1-C_5 alkyl group.

10. A resist composition comprising a fluorine-containing copolymer according to claim 5.

11. An anti-reflection film material comprising a fluorine-containing copolymer according to claim 5.